



Drought as a mental health exposure

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Abstract:

The mental health impact of drought is poorly quantified and no previous research has demonstrated a relationship between distress and explicit environmentally based measures of drought. With continuing climate change, it is important to understand what drought is and how it may affect the mental health. We quantified drought in terms of duration and intensity of relative dryness and identified drought characteristics associated with poor mental health to evaluate any vulnerability in rural and urban communities. Our methods involved analysis of 100-year longitudinal records of monthly rainfall linked to one wave (2007-2008) of the Household, Income and Labour Dynamics in Australia Survey. Cluster analysis was used to characterise different patterns of dryness and linear regression analysis was used to examine associations with participant distress, as well as the moderating role of rural locality. The results showed that, during a seven-year period of major and widespread drought, one pattern of relative dryness (extreme cumulative number of months in drought culminating in a recent period of dryness lasting a year or more) was associated with increased distress for rural but not urban dwellers. The increase in distress was estimated to be 6.22%, based on 95% confidence intervals. Thus, we show that it is possible to quantitatively identify an association between patterns of drought and distress.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Extreme Weather Event, Precipitation

Extreme Weather Event: Drought

Geographic Feature:

resource focuses on specific type of geography

Rural, Urban

Geographic Location:

resource focuses on specific location

Non-United States

Climate Change and Human Health Literature Portal

Non-United States: Australasia

Health Impact: ☒

specification of health effect or disease related to climate change exposure

Mental Health/Stress

Mental Health Effect/Stress: Mood Disorder

Population of Concern: A focus of content

Population of Concern: ☒

populations at particular risk or vulnerability to climate change impacts

Elderly, Low Socioeconomic Status, Racial/Ethnic Subgroup

Other Racial/Ethnic Subgroup: Indigenous Australian

Resource Type: ☒

format or standard characteristic of resource

Research Article

Timescale: ☒

time period studied

Time Scale Unspecified